DEADLINE for prototypes: Friday 20th november

TESTING: Monday 23th and Tuesday 24th november

**PRIORITIES**

* a 3D model for the enemy and player (could be really simple with just cubes and blocks)
* find out how 3D animations work

**3D models**

Player

Stats:

1. Healthpoints
2. Speed
3. Damage, different damagepoints for different weapons
4. Firerate, which will decrease or increase depending on the weapon
5. Stamina (for running)
6. Inventory for weapons (empty/non-empty)

Actions:

1. limited jumping (e.g. predefined height)
2. hit enemy
3. run and walk

Enemy

Stats:

1. Healthpoints
2. Damagepoints depending on their stats (maybe traingles)
3. Speed (if genetic algorithm: constant in between learning iterations)
4. Firerate

Actions:

1. For pathfinding: search for player
2. Hit player

**Generate level: 3D models**

Building:

* real scaled buildings
* standard buildings (blocks, cubes, windows and doors)
* different sizes

Nature:

* parks, big open green places with trees and bushes
* flowers (to add colour)

Roads:

* asfalt
* classic roads with white stripes

City (the level)

* different university campuses

**UI interface**

* Startmenu with:
  + username
  + choose/create avatar button
  + options
  + highscores
  + exit
  + settingsmenu (change volume, change controls, activate minimap etc)
* Play/Pause, gamestats in level

**Textures**

* naturetextures
* skytexture
* enemytextures
* playertextures

**AI design**

* genetic algorithm/neural network program idea, maybe a startscript
  + speed (if GA: increases over time, with playerexamples, if NN: depends on the NN that is attached to this enemy)
  + damage (if GA:increases over time, maybe give them a weapon they can throw, if NN: depends on the NN that is attached to this enemy)
  + HP and firerate (if GA: increase over time, if NN: depends on the NN)
* algorithm enemy movement: they walk around, when the player is within a certain distance the enemy will attack the player
* pathfinding algorithm

**Game analytics**

* Script for sending data to game analytics tool
* Optional: create own tool

**Programming**

* splitscreen multiplayer script
* FPS independent script
* change from 1st to 3rd person view script